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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,167	04/28/2000	Frank Fruth	1.068US	3697

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EXAMINER

POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 05/03/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/560,167

Applicant(s)

FRUTH ET AL.

Examiner

Joseph R. Pokrzywa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 2/6/04, and has been entered and made of record. Currently, **claims 1-16** are pending.

Response to Arguments

2. Applicant's arguments filed 2/6/04, with respect to the rejection of **claims 1-12**, cited in the Office action dated 10/24/03 as being anticipated by Barber *et al.* (U.S. Patent Number 6,535,906), have been fully considered but they are not persuasive. Further, upon review of the prior art Barber *et al.*, the examiner believes that the newly submitted dependent **claims 13-16** can also be interpreted as being anticipated by Barber *et al.*, with a discussion of the claims appearing below.

3. In response to applicant's arguments regarding the rejection of **claim 1**, whereby applicant argues on pages 9-11 that Barber fails to teach of detecting the expected end of a scan line without packet loss. As read in column 1, lines 27 through 31, Barber teaches that when a buffer becomes full, "incoming data packets can be dropped", thus being a situation where there is "packet loss". Further, as read in column 1, lines 31 through 34, Barber teaches that when there are too few packets in a buffer, many of the data packets "may have been delayed within the Internet and consequently, not yet received by the buffer", thus also being a situation where "packet loss" has occurred. With this, one of ordinary skill in the art can recognize that the system of Barber is evaluating the received scan line data, so as to detect the expected end of a

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scan line without packet loss, when an end of scan line indicator is received and the data stored in the buffer is below a maximum value or above a minimum value, as seen in the process in Fig. 4, at “yes” in steps 406 and 410, being read in column 5, lines 3 through 65.

4. Continuing, in response to applicant’s arguments, which state on pages 11-12 that Barber fails to teach of discarding the scan line data if the scan line data has packet loss. As discussed above, there is some form of “packet loss” when the packet data stored in the buffer is determined to be above a maximum value or is below a minimum value, seen in the process of Fig. 4. Therefore, if the packet data in the buffer is above a maximum value (“yes” in step 406), a selected scan line is deleted, as seen in step 408, and read in column 5, lines 13 through 25. Further, as read in column 6, lines 6 through 19, when the packet data is below the minimum, a scan line is re-sent, whereby “only one additional copy of each removed scan line is transmitted (in addition to the original of each scan line) until the total amount of data in the buffer 32 is greater than the minimum value”. Thus, the data that is below a minimum value is removed from the buffer so that new data can be transmitted.

5. Therefore, the rejection of independent *claim 1*, as well as independent *claim 7*, cited in the Office action dated 10/24/03, under 35 U.S.C. 102(e), as being anticipated by Barber *et al.*, is maintained and repeated in this Office action.

6. Continuing, in response to applicant’s arguments with respect to the rejection of dependent **claims 4 and 10**, which state of pages 12 and 13 that Barber fails to teach of replacing the discarded scan line data with a repetition of the previous scan line.

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In column 5, lines 14 through 25, Barber teaches that a selected scan line is deleted from the buffer “may be added to the outgoing data stream, thus completing transmission of the entire given scan line”. Further, in column 5, lines 19 through 23, Barber states that the “memory location of the next scan line thus can be overwritten with additional document data (i.e., another scan line) as it is received from the Internet 16”. These portions show that deleted scan lines are transmitted again, and thus being stored in the buffer upon reception so that they replace the discarded scan line with a repetition of the previous scan line, as required in the claim. Further, as read in column 6, lines 6 through 19, when the packet data is below the minimum, a scan line is re-sent, whereby “only one additional copy of each removed scan line is transmitted (in addition to the original of each scan line) until the total amount of data in the buffer 32 is greater than the minimum value”. Thus, the data that is removed from the buffer is replaced by new data that is transmitted.

7. Therefore, the rejection of dependent *claims 4 and 10*, cited in the Office action dated 10/24/03, under 35 U.S.C. 102(e), as being anticipated by Barber *et al.*, is also maintained and repeated in this Office action.

Specification

8. The received amendment dated 2/6/04 included changes to the specification that were not entered because an incorrect page number and line numbers were listed. Instead of listing "page 4, lines 8 to 16", the amendment should state "Please amend the specification, page 3, lines 18 to 26". Because of this, the objection, as previously cited, is repeated below.

9. The disclosure is objected to because of the following informalities:

On page 3, line 20, "dat" should read "data".

Appropriate correction is required.

Claim Objections

10. The objections to **claims 1, 5, and 7-12**, as cited in the Office action dated 10/24/03, are overcome by the changes set forth in the amendment dated 2/6/04.

Claim Rejections - 35 USC § 102

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. **Claims 1-16** are rejected under 35 U.S.C. 102(e) as being anticipated by Barber *et al.* (U.S. Patent Number 6,535,906, cited in the Office action dated 10/24/03).

Regarding **claim 1**, Barber discloses a method (seen in Figs. 3 and 4, being a method for the receiving gateway 24) for reducing facsimile page errors due to packet loss in facsimile transmission over a packet network (see abstract, and column 6, lines 32 through 48), comprising the steps of receiving facsimile image data packets from a packet network (see abstract, and

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column 3, lines 45 through 50), reassembling the received packets (see abstract, and column 3, lines 45 through 59, and column 4, lines 18 through 48), parsing the assembled packets into scan line data of the facsimile image (column 3, line 51 through column 4, line 48), evaluating the scan line data to detect the expected end of a scan line (being an “end of scan line indicator”, as read in column 4, lines 21 through 31) without packet loss (column 3, line 60 through column 5, line 65, wherein packet loss is detected when the buffer 32 is overfilled or underfilled with scan line data, based upon the data exceeding a preselected size range), playing out the scan line data to the local FTE if the scan line data has no packet loss (column 3, line 60 through column 4, line 31, column 4, line 49 through column 5, line 13, and column 5, lines 51 through 57, whereby the scan line data stored in the buffer is within the preselected range, and is transmitted to the receiving fax machine 14), and discarding the scan line data if the scan line data has packet loss (seen in Fig. 4, step 408, column 5, lines 13 through 50, whereby when fill bits are included in the received packet, the buffer 32 overflows, as the amount of stored data in the buffer 32 increases to a point that exceeds the maximum value when an “end of scan line indicator” is received).

Regarding *claim 2*, Barber discloses the method discussed above in claim 1, and further teaches of steps of replacing the discarded scan line data with zero fill data (column 5, lines 58 through 65), and playing out the zero fill data to the local FTE (column 5, line 58 through column 6, line 31).

Regarding *claim 3*, Barber discloses the method discussed above in claim 1, and further teaches of a step of replacing the discarded scan line data with scan line data defining a blank

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scan line (column 5, line 58 through column 6, line 31, wherein fill bits with a "0" value define a blank scan line).

Regarding *claim 4*, Barber discloses the method discussed above in claim 1, and further teaches of a step of replacing the discarded scan line data with a repetition of the previous scan line (column 5, line 58 through column 6, line 31).

Regarding *claim 5*, Barber discloses the method discussed above in claim 1, and further teaches of a step of buffering the scan line data (with scan line data being stored in buffer 32, column 3, line 45 through column 4, line 48).

Regarding *claim 6*, Barber discloses the method discussed above in claim 2, and further teaches of steps of continuing to provide zero fill data to the local FTE (step 412 in Fig. 4, column 5, line 58 through column 19), monitoring the scan line data for the start of the next detected scan line (column 4, line 18 through column 6, line 27), buffering the next detected scan line data (column 5, lines 58 through 65), evaluating the next detected scan line data to detect the expected end of a scan line without packet loss (column 3, line 60 through column 5, line 65), playing out the next detected scan line data to the local FTE if the scan line data has no packet loss (column 3, line 60 through column 4, line 31, column 4, line 49 through column 5, line 13, and column 5, lines 51 through 57, whereby the scan line data stored in the buffer is within the preselected range, and is transmitted to the receiving fax machine 14), and continuing to provide zero fill data to the local FTE if the scan line data has packet loss (column 5, line 51 through column 6, line 27).

Regarding *claim 7*, Barber discloses a device (receiving gateway 24) for reducing facsimile page errors due to packet loss in facsimile transmission over a packet network (see

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abstract, and column 6, lines 32 through 48), comprising a gateway (see Fig. 2) for receiving facsimile image data packets from a packet network (see abstract, and column 3, lines 45 through 50), a processor (see Fig. 2) for reassembling the received packets (see abstract, and column 3, lines 45 through 59, and column 4, lines 18 through 48), parsing the assembled packets into scan line data of the facsimile image (column 3, line 51 through column 4, line 48), evaluating the scan line data to detect the expected end of a scan line (being an “end of scan line indicator”, as read in column 4, lines 21 through 31) without packet loss (column 3, line 60 through column 5, line 65, wherein packet loss is detected when the buffer 32 is overfilled or underfilled with scan line data, based upon the data exceeding a preselected size range), playing out the scan line data to a local FTE if the scan line data has no packet loss (column 3, line 60 through column 4, line 31, column 4, line 49 through column 5, line 13, and column 5, lines 51 through 57, whereby the scan line data stored in the buffer is within the preselected range, and is transmitted to the receiving fax machine 14), and for discarding the scan line data if the scan line data has packet loss (seen in Fig. 4, step 408, column 5, lines 13 through 50, whereby when fill bits are included in the received packet, the buffer 32 overflows, as the amount of stored data in the buffer 32 increases to a point that exceeds the maximum value when an “end of scan line indicator” is received).

Regarding *claim 8*, Barber discloses the device discussed above in claim 7, and further teaches that the processor replaces the discarded scan line data with zero fill data (column 5, lines 58 through 65), and plays out the zero fill data to the local FTE (column 5, line 58 through column 6, line 31).

Regarding *claim 9*, Barber discloses the device discussed above in claim 7, and further teaches that the processor further replaces the discarded scan line data with scan line data defining a blank scan line (column 5, line 58 through column 6, line 31, wherein fill bits with a "0" value define a blank scan line).

Regarding *claim 10*, Barber discloses the device discussed above in claim 7, and further teaches that the processor further replaces the discarded scan line data with a repetition of the previous scan line (column 5, line 58 through column 6, line 31).

Regarding *claim 11*, Barber discloses the device discussed above in claim 7, and further teaches of a buffer for buffering the scan line data (with scan line data being stored in buffer 32, column 3, line 45 through column 4, line 48).

Regarding *claim 12*, Barber discloses the device discussed above in claim 8, and further teaches that the processor further continues to provide zero fill data to the local FTE (step 412 in Fig. 4, column 5, line 58 through column 19) while monitoring the scan line data for the start of the next detected scan line (column 4, line 18 through column 6, line 27), the buffer stores the next detected scan line data (column 5, lines 58 through 65), the processor evaluates the next detected scan line data to detect the expected end of a scan line without packet loss (column 3, line 60 through column 5, line 65), plays out the next detected scan line data to the local FTE if the scan line data has no packet loss (column 3, line 60 through column 4, line 31, column 4, line 49 through column 5, line 13, and column 5, lines 51 through 57, whereby the scan line data stored in the buffer is within the preselected range, and is transmitted to the receiving fax machine 14) or continues to provide zero fill data to the local FTE if the scan line data has packet loss (column 5, line 51 through column 6, line 27).

Regarding *claim 13*, Barber discloses the method discussed above in claim 1, and further teaches of shifting a scan line portion of the facsimile image received in the FTE after the discarding to join a scan line portion of the facsimile image received in the FTE before the discarding to form the facsimile image (column 5, lines 43 through 50, wherein for data that is received in the buffer and is above a maximum value, fill bits inserted at the sending fax machine are deleted, thus shifting the scan lines in the buffer so as to join a scan line portion that does not include fill bits; further, in column 6, lines 21 through 27, when the buffer 32 is no longer below the minimum, “the last portion of the scan line is added to the outgoing stream”, thereby shifting the scan line portion in the outgoing data stream).

Regarding *claim 14*, Barber discloses the device discussed above in claim 7, and further teaches that the processor shifts a scan line portion of the facsimile image received in the FTE after the discarding to join a scan line portion of the facsimile image received in the FTE before the discarding to form the facsimile image (column 5, lines 43 through 50, wherein for data that is received in the buffer and is above a maximum value, fill bits inserted at the sending fax machine are deleted, thus shifting the scan lines in the buffer so as to join a scan line portion that does not include fill bits; further, in column 6, lines 21 through 27, when the buffer 32 is no longer below the minimum, “the last portion of the scan line is added to the outgoing stream”, thereby shifting the scan line portion in the outgoing data stream).

Regarding *claim 15*, Barber discloses the method discussed above in claim 1, and further teaches of replacing the discarded scan line data with a repetition of a previously acceptable scan line (column 6, lines 11 through 20, wherein “an indefinite number of copies can be transmitted until the total amount in the buffer 32 is greater than the minimum value”, thus stating that a scan

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line may be re-sent an indefinite number of times, therein including having a repetition of a previously acceptable scan line).

Regarding *claim 16*, Barber discloses the method discussed above in claim 7, and further teaches that the processor replaces the discarded scan line data with a previously acceptable scan line (column 6, lines 11 through 20, wherein “an indefinite number of copies can be transmitted until the total amount in the buffer 32 is greater than the minimum value”, thus stating that a scan line may be re-sent an indefinite number of times, therein including having a repetition of a previously acceptable scan line).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

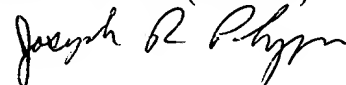
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrj



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